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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/052,284	03/31/98	WANG	Z 3

LM01/0203

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EXAMINER
LANE,J

ART UNIT	PAPER NUMBER
2751	4

DATE MAILED:

02/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)
Office Action Summary		
	Examiner	Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on ___6/24/98___ .

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) ___1-32___ is/are pending in the application.

Of the above claim(s)_____ is/are withdrawn from consideration.

☐ Claim(s)_____ is/are allowed.

☒ Claim(s) ___1-32___ is/are rejected.

☐ Claim(s)_____ is/are objected to.

☐ Claim(s)_____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on_____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on_____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number)_____ .

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received:_____ .

Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of References Cited, PTO-892

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other_____

Office Action Summary

U. S. Patent and Trademark Office

PTO-326 (Rev. 3-97)   *U.S. GPO: 1997-417-381/62710   Part of Paper No._____

DETAILED ACTION

1.   Claims 1-32 are presented for examination.

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3.   Claims 1-32 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by

Brendel et al. (5,774,660).

Brendel teaches the claimed cache servers as servers 22. The claimed "cache

selection module" corresponds to the load balancer shown throughout the figures. The

load balancer maintains a directory table of the locations of different files among the

servers (col. 10, lines 54-58). The load balancer accepts multiple virtual IP addresses

(col. 20, lines 27-30) and translates into real IP addresses of the destination server.

Multiple load balancers can be used among the servers as indicated at col. 20, lines 57-

59.

Any response to this action should be mailed to:
>   Assistant Commissioner for Patents
>   Washington, D.C. 20231
> **or faxed to:**
>   (703) 308-9051 or 9052, (for formal communications intended for
>   entry)
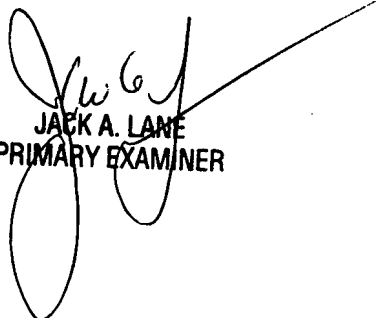> **Or:**
>
>   (703) 305-9731 (for informal or draft communications, please label
>   "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Jack Lane whose telephone number is (703) 305-3818.
The examiner can normally be reached on Mon-Thu from 7:30AM to 6PM.

Any inquiry of a general nature or relating to the status of this application should
be directed to the Group receptionist whose telephone number is (703) 305-3900.

JAL
January 31, 2000

JACK A. LANE
PRIMARY EXAMINER

DOCUMENT-IDENTIFIER: US 5774660 A
TITLE: World-wide-web server with delayed resource-binding for resource-based
load balancing on a distributed resource multi-node network

ABPL:
A multi-node server transmits world-wide-web pages to network-based browser
clients. A load balancer receives all requests from clients because they use a
virtual address for the entire site. The load balancer makes a connection with
the client and waits for the URL from the client. The URL specifies the
requested resource. The load balancer waits to perform load balancing until
after the location of the requested resource is known. The connection and URL
request are passed from the load balancer to a second node having the requested
resource. The load balancer re-plays the initial connection packet sequence to
the second node, but modifies the address to that for the second node. The
network software is modified to generate the physical network address of the
second node, but then changes the destination address back to the virtual
address. The second node transmits the requested resource directly to the
client, with the virtual address as its source. Since all requests are first
received by the load balancer which determines the physical location of the
requested resource, nodes may contain different resources. The entire contents
of the web site is not mirrored onto all nodes. Network bottlenecks are
avoided since the nodes transmit the large files back to the client directly,
bypassing the load balancer. Client browsers can cache the virtual address,
even though different nodes with different physical addresses
service requests.

DEPR:
FIG. 6 is a diagram of a web server which asymmetrically routes incoming
traffic through a load-balancer while bypassing the load-balancer for data

transmitted back to client browsers. Browsers 10, 10A cache a
virtual IP
address 34 in client cache 20. Virtual address 34
(230.101.17.200) is an IP
address that identifies all servers at the web site. Unlike a
conventional IP
address which is unique to an individual host or server, the
virtual IP address
identifies the web site in its entirety.